No 29

Fever at the Thirza Alms-House in 1821

Samuel C Gwinner

Passed March 11th 1823

Fever at the Philad.a Alms House in 1821.

This was a bilious fever, of an aggravated character, which appears to have been confined to a particular class of inhabitants in this City and Liberties, viz the most indigent and miserable of the negroes; from which circumstance it received the popular name of the "black fever." For several summers past it has prevailed among them with great mortality; during the last season I recollect having seen a great number of cases of this description, while attending the practice of the House, and very many fell victims to it. I shall attempt to give a sketch of this complaint as it presented itself to my own immediate view this season, with the comparative effect of the different remedies employed for the cure. It was about the latter end of May that the first patients labouring under this disease were admitted into the Philadelphia Alms House; the few first cases having the well marked character of ordinary bilious fever, excited no suspicion, and were in fact easily treated by the common depletory means. As the weather became warmer, the number of patients considerably increased, accompanied with a corresponding degree

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of malignancy, until the beginning of July when it suffered a check, seemingly in consequence of the weather becoming suddenly very cool. During this period however, a great many patients were received into this Institution. The disease as has already been stated, prevailed principally among the lowest class of the blacks; and its prevalence among them has been attributed (and no doubt with much propriety) to indolent and intemperate habits of life, to which they are naturally disposed; to which may be added a scanty and unwholesome diet, and a total disregard to cleanliness, both personal and in their habitations.

Another vice to which they are addicted, is drunkenness; they take but little substantial food, drink to excess, and during a state of intoxication not unfrequently expose themselves to the scorching rays of the sun by day, and at night to the noxious vapours at this time descending, by lying before the doors of their miserable habitations.

They are often crowded together in the narrow and dirty alleys of the Liberties particularly in confined places, where not unfrequently two or three families of these unhappy beings exist in a space so small as would scarcely make as many individuals comfortable. These and many other vices and irregularities are fruitful sources of so much sickness and death, when they prevail in so high a degree. The disease once

excited, suddenly prostrated the powers of life to such a degree, as to defy all our efforts to subdue it unless timely attended to; this melancholy fact was but too frequently exemplified during its prevalence.
Another cause of its mortality was want of medical attention in proper time, and other accommodations to render their situation comfortable. In consequence of extreme poverty they seldom solicited medical aid, and often their situation was not made known to the Guardians of the Poor, until they were beyond all hopes of recovery. Such being the fact, they were not unfrequently brought here in so low a state, that many died a few hours after admission; and several, to the no small degree of surprise of the draymen, were found dead in the carts on their arrival here.

I shall now endeavour to describe the symptoms and progress of the disease, as well as circumstances will admit. It was almost impossible to gain any satisfactory information from the patients themselves, in consequence of the disturbed state of their minds. From such however, as could describe their feelings about the time of the attack, it appeared, that a few days, sometimes but a few hours preceding that event, the patient felt a general lassitude or weariness and drowsiness, with alternate sensations of heat

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and cold. Sometimes the attack was more sudden, and was announced by a smart chill, followed by intense heat of the body, extreme thirst, violent pain in the head, back and loins, hurried respiration, nausea and vomiting. Such was the nature of the attack. In a short time the Epigastric region became very tender and painful, which gradually increased and extended over the whole abdomen, and in some instances was so exquisite as to cause the patient to cry out, on the slightest pressure being applied to the part.

The pulse was commonly small, quick and frequent, beating from 110 to 140 strokes per minute, and easily compressed; the tongue was covered with a yellowish fur; the eyes from a reddish appearance, gradually assumed a deep yellow colour; the skin was tinged with the same, as was very evident in the mulattoes; the bowels were very costive, the urine high coloured and scanty.

The above symptoms increased very rapidly, with slight remissions, and would in a little time destroy the patient unless arrested by medical interference.

The vomiting was often distressing, and the gastric irritation so considerable, that even the mildest substances taken into the stomach were immediately ejected. Although there was

often considerable derangement of the intellectual faculties, there was seldom much delirium; more frequently the patients were in a comatose state, and when roused up would often describe their feelings with seeming perspicuity. If the disease was not checked in its career, the fatal symptoms quickly appeared, such as laborious respiration, heaving and oppression of the chest, cold clammy sweats, cold extremities, total insensibility to all external impressions, hiccough with a feeble and tremulous pulse. At this stage, the tongue was often quite hard, dry and contracted, and almost black; the mouth and fauces were parched and dry, with a large collection of sordes on the teeth and gums.

The muscular strength in the advanced stage, was in some cases astonishing; the patients would rise out of bed, and go on the close stool unassisted, a few hours before death. In two instances I witnessed with surprise, patients almost pulseless, get out of bed, walk across the floor; they returned again to their beds and expired in the act of lying down. This preternatural degree of muscular strength was always an unfavorable symptom, and invariably foretold approaching dissolution.

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Assisted by my friend Doctor Lawrence, I examined the majority of those that died. We uniformly found the stomach in a state of inflammation, varying however in degree. In a few cases it contained a quantity of dark coloured slimy fluid of a peculiar and somewhat offensive smell; this was considered an effusion of blood mixed with the natural secretion of this organ, by an experienced practitioner who was present at one of the examinations. Often the inflammation extended to the duodenum; and in one instance the whole tract of the intestinal canal was highly inflamed, being of a dark colour, and crowded with distended bloodvessels, having as the stomach, a similar appearance of effused blood on their inner surface.

The Liver, through deranged in its function, presented no trace of organic disease in its structure, that the eye could detect, except in a few instances it seemed rather soft; its ducts were likewise unaffected. The thoracic viscera were in a sound state. Occasionally we found the vessels of the brain preternaturally distended with blood, and the ventricles containing more fluid than is usual, otherwise it seemed perfectly natural in appearance

and structure. The stomach appears to have been the primary seat of this complaint, and to it most of the painful and distressing sensations of the patients themselves were referred. L

I shall now consider the remedies employed for its cure. From what has already been said, it must appear evident, that the stage in which general depletion would have been most beneficial, had in the majority of cases elapsed previous to the patients being admitted into this Institution; this being the fact, we were in a great measure deprived of the use of this active remedy; but whenever the state of the patient would admit, recourse was had to the lancet with the most happy effect.

The first indication, was to allay the gastric irritation, which commonly was one of the first symptoms, and frequently continued more or less till the patients came here; for this purpose the various anti-emetic remedies such as the Neutral Mixture, the effervescing draught, lime water and milk, soda Water &c were employed; sometimes either of these would succeed, more commonly all would fail; under such circumstances a large blister applied immediately over the Epigastric region invariably checked it, provided it produced vesication.

When considerable pain existed in the part, local bleeding was directed previous to its application. Having composed the stomach, the alimentary canal next claimed attention; to evacuate their contents, eight or ten grains of calomel were first given to the patient and followed up by small doses of some other purgative, as an infusion of Senna, Solution of Epsom Salts or Castor oil &c as one or the other proved less offensive to the stomach, until three or four copious evacuations should be procured which were generally of a black colour and very offensive smell. If the last purgatives were all rejected, calomel in smaller doses was repeated alone, until the bowels were sufficiently moved. If the pain in the head was not relieved after the operation of the cathartic, blood was freely drawn from the forehead and temples with the cups and scarificator, which frequently gave relief; if not, a blister applied between the shoulders seldom failed. To assist in allaying the pain and soreness, warm fomentations were also applied to the abdomen, with much benefit to the sufferer; the bowels were kept in a soluble state throughout the course of the disease, with some suitable medicine.

If the remedies I have mentioned failed to produce a mitigation

of the disease, blisters were applied to the extremities, and sweating had recourse to, which operated like a charm in checking the fever, provided it was general. Should all our means however prove unavailing, the system would sink rapidly, and symptoms of great prostration come on, when it became necessary to support the system. For this purpose the carbonate of ammonia, with a liberal quantity of wine whey, milk punch or ardent spirits, together with small doses of a decoction of Serpentaria frequently repeated, were found most effectual.

Frictions to the extremities were likewise very serviceable at this period, with the Tincture of Capsicum, or a decoction of Cantharides in Spirits of Turpentine, which created a heat and glow in the parts. As a stimulant, trial was likewise made of the spirits of Turpentine taken internally, but with no evident advantage.

By steadily persevering in the above plan of treatment, adapting our remedies to the particular circumstance of the case, it was gratifying occasionally to see a patient recover, under circumstances the most unfavourable. During the convalescent state, which was often slow and protracted, with disposition to relapse, the Vegetable tonic medicines were given, variously combined, with

the addition of aromatics, together with a liberal quantity of Porter, which the patients generally preferred to every other kind of liquor. The diet also, was adapted to the condition of the patient.

This was the mathia of treatment pursued, when the fever first made its appearance; but was on the whole very unsuccessful, many having fallen victims to the disease. Happily a more successful remedy presented itself. A Ptyalism having unexpectedly taken place in one of my patients after the exhibition of mercurial cathartics, I was immediately struck at its sudden effect in arresting the progress of the complaint. This patient also had a rapid recovery. To satisfy myself on the influence of mercury, over this disease, I resolved to give it a fair trial, as our success heretofore had been very discouraging.

After the bowels had been freely evacuated, and the ordinary applications made to the local symptoms, I commenced giving the calomel with the view of exciting salivation as speedy as possible. For this purpose two or three grains of calomel were directed every second, fourth or sixth hour, according to the urgency of the symptoms. If the mercurial action could be

excited, it always cured the disease. I cannot call to mind a single intance where it failed. Unfortunately however, this desirable end could not always be effected; the susceptibility of the system to the impression of our remedies appeared to be entirely destroyed in some cases, particularly such as were of considerable duration, in which no medicine whatever was of any service.

Was a salivation necessary for the cure of this disease? So far as my very limited experience has gone, I should answer in the affirmative. If the system did not feel the influence of the remedy, it was of no benefit, though liberally taken; but if the mercurial action could be excited, it invariably checked the progress of the complaint, and ultimately proved successful. It also secured the patient against the relapses which before were so apt to occur.

I have reference to mercury as a remedy in this disease as it presented itself to our notice, but under all circumstances would not consider it essentially necessary for the cure. On the contrary, if the complaint were treated in its first stage by bleeding & purging, assisted by such medicines as determine

to the skin, I am pretty confident they would be attended with a favourable result; this is confirmed by the testimony of several practitioners, who informed me that the antiphlogistic plan succeeded with them in the first stage of the disease.

In the treatment of fevers generally, the lancet ranks first in the list of our remedies, and should always be kept in view. Experience has proved it one of the most certain and efficacious means we possess, and when judiciously managed, equally safe; but it is in the commencement only, that it can be carried to a sufficient extent to be of essential and permanent benefit in a disease like the present, whose attack was sudden and severe, whose course was very rapid, and in a short time proved fatal. This important period having elapsed, our means of cure became more limited and uncertain; it was here mercury displayed its powers, and was in fact the only medicine in which any degree of confidence could be placed.

In the foregoing short and general account of this fatal disease, I have confined myself solely to the narration of facts

as they occurred at the bed side. I might easily have extended this paper to a much greater length by the insertion of cases, and the detail of symptoms occasionally observed; but enough I trust has been said to point out the nature of the complaint. One of the chief objects in writing the above has been to testify to the superior efficacy of Mercury in the treatment of this fever, after the first stage has elapsed.

The practice is not novel. I was informed by a gentleman who had charge of these same wards the preceding summer (at which time this fever was very prevalent and fatal) and I was witness to the fact, that salivation was the only security to the patient, while every other means proved comparatively ineffectual. But in the employment of this remedy a great mistake was committed; it was given in too small a quantity; the patient would often die before the mercury had time to exert its peculiar action; of this circumstance I was soon apprised, which induced me to prescribe the medicine freely as already stated.

It will yet remain for future experience to determine on

the truth or fallacy of the statements herein mentioned. Should the remedy be as successful in the hands of others as it has been in mine, I am confident many lives will be saved, which otherwise would be infallibly destroyed. In conclusion I would observe, as the disease was very rapid in its progress, and every hour of delay was greatly to the patients disadvantage, the intention was to excite salivation as soon as possible, without having any regard to the quantity of the medicine taken, but to continue it, until its specific effect was evinced, short of which, no benefit was derived from it.

Tentamen Medicum Inaugurale

De morbis, qui per Franklinensem comitatum publicè grassati sunt, Anno MDCCCXXII. inter Martii et Septembris menses. —

quod

sub moderamine viri admodum reverendi

Fredrick Beasley D. D.

Universitatis Pennsylvaniensis Praefecti;

hac hora,

Ex curatorum auctoritate praeillustrium, et amplissimae facultatis medicae decreto,

Pro Gradu Doctoris

summisque in Medicina honoribus et privilegiis ita et legitimè consequendis;

eruditorum examini subficit

Andreas N. McDowell

De Thalamipole Pennsylvaniensi; — — —

Passed March 12th 1823